Data Science for Policy-Making

Final course assignment

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Setup

- For our course you will have a group assignment.
- You will be divided into group of 3-4 participants.
- This assignment will be merged with **Leo Iacovone's course assignment**.
- For our course, you will **extend the presentation** by adding elements that speak to our element on data science for policy-making.
- Thus, **the deliverable will be a presentation**, consisting of the content asked by Leo and the content asked by us.

Learning outcomes

- The objective is for you to apply what you learn through the course.
- You have prepare a presentation to put in practice your skills about:
    1. Collecting high quality evidence
    2. Assessing use of evidence in policy documents
    3. Using concrete evidence to write a policy/program proposal and its evaluation plan

Procedure

1. You have formed groups. **Correct?**

2. Leo has asked you to choose one topic of interest that is linked to topics from the following list:

- Health and nutrition
- Enterprise development
- Income and employability support
- Trade facilitation and competitiveness
- Road infrastructure
- Nutrition and health
- Agricultural productivity
- Education

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Collecting evidence (Leo's part)

- This first part of the presentation will focus on collecting evidence for your program/policy.
- You need to prepare a **6-8 slides summary of the evidence**, and you could use tables to summarize it.
- More details in Leo's syllabus.

Making the case for the policy (Our part)

- Precede the evidence with a **2 slides introduction** that makes the case for the program/policy.
- The **first slide** should be framed around one piece of **visual evidence**. This can be from a research paper, a blog post, etc. and help highlight the problem that the policy is trying to address.
- The **second slide** summarizes the program/policy and its objectives.

Judging the quality of the evidence

- Provide a **tabular overview** of the different sources of evidence you collected for Leo's part.
- The table should be ranked by the quality of evidence you attach to each source, and a column that briefly justifies your judgment (along criteria of **external and internal validity of the evidence as well as practical usefulness**).
- That is **1-2 slides** additional to Leo's part.

Assess existing program/policy (Leo's part)

- The second part of your assignment will require you to choose one of the projects suggested and assess it or provide a discussion and grade it on how well evidence was incorporated.
- The program/policy should be in the same technical area that you have chosen (ideally the same topic/project).
- Your assignment is to prepare a **4-5 page presentation** assessing how well the program/policy incorporates evidence and grade it (on a scale 0-100) and justify your grade based on the evidence that you collected in your previous assignment.
- See Leo's syllabus for more details regarding the rating criteria.

Our part

- Provide a **tabular assessment** of both the **external and internal validity of the evidence** used in the policy document.
- Highlight the strengths and weaknesses of the evidence used in the policy document on both dimensions.
- That is **1-2 slides** additional to Leo's part.

Using the evidence (Leo's part)

- In the final part of your assignment you will design and propose a program based on the policy/program that you identified (assignment part 1), or the one that you reviewed (assignment part 2). Your presentation should include the following sections (again, more details in Leo's syllabus):
  1. Context and problem definition (**3-4 slides**).
  2. Theory of change with specific reference to summary of evidence on which you base it (**3-4 slides**).
  3. Evaluation plan: How will the program generate further evidence? (**2-3 slides**)

Our part

- Provide a **DAG** that clarifies the relationship between the policy/treatment/intervention and **one** outcome of interest, and other variables that would affect the causal relationship (confounders etc.).
- Provide a **plan for data collection and management** that discusses how you would plan to measure KPIs, policy exposure, etc.
- Provide a **discussion of the ethics of your program**. What could be positive and negative externalities for citizens affected or not affected by the program? And how could possible negative externalities be mitigated?
- Overall, that is **6-8 additional slides**.

1. Key deliverable is a presentation that addresses both Leo's an our assignment tasks.

2. You are going to present this in the final session in July.

3. If you have any questions on the presentation, please reach out to us (munzert@hertie-school.org).